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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/761,033	01/16/2001	Yang Gao	10508/998RSS366	4236

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FARJAMI & FARJAMI LLP  
26522 LA ALAMEDA AVENUE, SUITE 360  
MISSION VIEJO, CA 92691

EXAMINER
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SKED, MATTHEW J

ART UNIT	PAPER NUMBER
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2626

DATE MAILED: 06/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/761,033	<b>Applicant(s)</b> GAO, YANG	
	<b>Examiner</b> Matthew J. Sked	<b>Art Unit</b> 2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 27 April 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 28,29,31,32,34,35,38,39,41,42,44,45 and 48-54 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 28,29,31,32,34,35,38,39,41,42,44,45,48 and 49 is/are allowed.
- 6) ☒ Claim(s) 50-53 is/are rejected.
- 7) ☒ Claim(s) 54 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Response to Amendment***

1. Claims 28 and 38 have been amended to include previously allowable subject matter and are allowable.
2. Claims 50-54 have been newly added.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 50 are rejected under 35 U.S.C. 102(b) as being anticipated by Gerson et al. (U.S. Pat. 5,359,696).

As per claim 50, Gerson teaches a method for encoding a speech signal, said method comprising:

processing said speech signal to generate a plurality of frames, wherein each of said plurality of frames includes a plurality of subframes (CELP operates on every frame of the speech and suggests performing the operations on reduced sized frames hence subframes, col. 1, line 53 to col. 2, line 6 and col. 4, lines 14-23);

coding a previous subframe of said plurality of subframes using CELP to generate a previous excitation signal (CELP is used to code blocks of speech samples, col. 1, lines 32 to col. 2, line 6);

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determining information of lag and gain from said previous subframe (lag and LTP coefficient are computed from past output of the LTP filter, col. 3, lines 1-16);

scaling said information to generate a scaled information of said previous subframe (lag is a multiple of the pitch period, hence the pitch period is scaled by that multiple, col. 2, lines 61-67); and

applying said scaled information of said previous subframe to a current excitation signal for a current subframe to enhance data used to code said current excitation signal for said current subframe (previous filtered subframes are applied to the current subframe, col. 7, lines 32-49 and Fig. 2A).

5. As per claim 51, Gerson teaches wherein said applying adds said scaled information to said current excitation signal for said current subframe (Fig. 2A, element 210).

6. As per claim 52, Gerson teaches wherein said scaling generates said scaled information of said previous excitation signal for a previous peak in said previous subframe (scales the period which is measured from the previous peak, col. 3, lines 1-16), and said applying uses said scaled information to determine a first approximation of said current excitation signal for a current peak in said current subframe (long-term predictors by definition uses a segment of a past reconstructed signal to match an original signal in the present subframe therefore approximating the current peak, col. 3, lines 1-16).

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7. As per claim 53, Gerson teaches wherein said applying adds said scaled information to said current excitation signal for said current subframe (Fig. 2A, element 210).

### ***Allowable Subject Matter***

8. Claims 28, 29, 31, 32, 34, 35, 38, 39, 41, 42, 44, 45, 48 and 49 are allowed.

9. Claim 54 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. The following is a statement of reasons for the indication of allowable subject matter: None of the prior art on record teaches constructing the current excitation signal using the equation given. It would not have been obvious to one of ordinary skill in the art at the time of invention to modify the prior art to arrive at this invention.

### ***Conclusion***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kleijn (U.S. Pat. 5,719,993) teaches CELP coding with Long-term prediction.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew J. Sked whose telephone number is (571) 272-7627. The examiner can normally be reached on Mon-Fri (8:00 am - 4:30 pm).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached on (571) 272-7843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MS  
6/20/06

  
**DAVID HUDSPETH**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2600**